

19' N. Longitude 77 deg. 36' E. Elevation 1275 m. Kazakhstan, Turgen Village, Kamenka Gorge (Stone Gorge), East of Arboretum, near Composer's house retreat. Soil rocky. Slope east near stream. Population 50. Surrounding plants buckthorn, apricot, Betula. Pedigree - Wild. Fruit 4.3 x 4.6 cm, green with red blush. Flavor juicy, acidic, nice. Leaf shape like Red Delicious. Leaf disease: scab; scorch, gray necrotic leaf spots. Tree height 7 m; Golden Delicious habit; branches stripped by bear.

PI 600462. *Malus sieversii* (Ledeb.) M. Roem.

Wild. GMAL 3565. Collected 09/17/1993 in Kazakhstan. Latitude 43 deg. 19' N. Longitude 77 deg. 36' E. Elevation 1275 m. Kazakhstan, Turgen Village, Kamenka Gorge (Stone Gorge), East of Arboretum, near Composer's house retreat. Soil rocky. Slope west. Population 50. Surrounding plants buckthorn, apricot, Betula. Pedigree - Wild. Fruit yellow-green, good flavor. Leaf disease: scab. Tree height 3 m.

PI 600463. *Malus sieversii* (Ledeb.) M. Roem.

Wild. GMAL 3566. Collected 09/17/1993 in Kazakhstan. Latitude 43 deg. 19' N. Longitude 77 deg. 36' E. Elevation 1275 m. Kazakhstan, Turgen Village, Kamenka Gorge (Stone Gorge), East of Arboretum, near Composer's house retreat. Soil rocky. Slope near stream. Population 50. Surrounding plants buckthorn, apricot, Betula. Pedigree - Wild. Fruit 4.5 x 4.7 cm, Red Delicious shape, green-yellow with red blush. Flavor good balance of sweet and acid. Leaf disease: scab. Excellent quality, fruit one of the best. Tree height 10 m; Golden Delicious habit.

PI 600464. *Malus sieversii* (Ledeb.) M. Roem.

Wild. GMAL 3567. Collected 09/17/1993 in Kazakhstan. Latitude 43 deg. 30' N. Longitude 77 deg. 41' E. Elevation 930 m. Kakzhstan, Malovdnoe Village, State Farm (Dr. Smuryghin). Pedigree - Wild. Fruit roundish, oval, greenish yellow with little dark red stripes. Flavor acidic sweet. Fruit mature in mid Sept., frost resistant and hardy to winter dryness, seeds. Leaf disease: mildew and scab tolerance. Tree height 4.7 m.

PI 600465. *Malus sieversii* (Ledeb.) M. Roem.

Wild. GMAL 3568. Collected 09/19/1993 in Kazakhstan. Latitude 43 deg. 11' N. Longitude 77 deg. 7' E. Elevation 1680 m. Kazakhstan, near Alma Ata, Kotur Balak "Dirty Water", Delbalak "Clean Water", Kherbet Zailiysky Alatau, 30 m N of stream in gorge. Soil moist humus, deep brown. Slope 45% N facing. Population 30-40. Surrounding plants cultivated apricot, Sorbus, Lonicera tartarica. Pedigree - Wild. No info.

PI 600466. *Malus sieversii* (Ledeb.) M. Roem.

Wild. GMAL 3569. Collected 09/19/1993 in Kazakhstan. Latitude 43 deg. 11' N. Longitude 77 deg. 7' E. Elevation 1685 m. Kazakhstan, near Alma Ata, Kotur Balak "Dirty Water", Delbalak "Clean Water", Kherbet Zailiysky Alatau, 30 m N of stream in gorge. Soil moist humus, deep brown. Slope 45% N facing. Population 30-40. Surrounding plants cultivated apricot, Sorbus, Lonicera tartarica. Pedigree - Wild. Fruit medium, 4.5 x 4.5 cm, globose, elongated with long pedicel, ribbed fruit, yellow green with strip, some blush. Flavor aromatic, sweet, crisp, somewhat bitter, somewhat juicy. Tree height 10 m, spreading habit; spur type.